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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,053	01/08/2001	Christophe Bertez	S.5229 US - OP/MM	6760

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EXAMINER
JOHNSON, JONATHAN J

ART UNIT	PAPER NUMBER
1725	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/755,053	BERTEZ ET AL.	
	Examiner	Art Unit	
	Jonathan Johnson	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5-9,11,12,14,15 and 22-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,2,5-9,11,12,14,15 and 22-30* is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 5-8, 11-12, 14-15 and 22-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen (6,175,096) in view of Rolf et al. (WO 96/23624). With respect to Claims 1, 5, 12, 14, 22 and 25-27, Nielson teaches a method of cutting a workpiece made of stainless steel (Column 1, Lines 25-35 and column 2, Lines 50-56) by the use of at least one transparent or reflecting optical means for focusing at least one laser beam in which the optical means is the multifocus type (Figure 1a and Item 1a). Nielson teaches the use of an assist gas using nitrogen but does not specifically teach an oxygen/nitrogen mixture. Rolf et al. teach a laser beam method of cutting stainless steel where the assist gas is an oxygen nitrogen mixture containing the claimed range and no other gas than the assist gas is supplied to the nozzle (Page 5, Lines 3-9 and Page 2, Lines 25-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the gas of Nielson to utilize the assist gas of Rolf et al. in order to increase the laser cutting speed (see Rolf et al. Page 2, Lines 25-30).

With respect to Claims 2, 11, and 23-24 the teachings of Nielson and Rolf et al. are the same as relied upon in the rejection of Claim 1. Nielsen teaches the mutlifocus optical means is a bifocal lens (Claim 3).

With respect to Claims 6, 15, 28 and 29, the teachings of Nielson and Rolf et al. are the same as relied upon in the rejection of Claim 1. Nielsen teaches the optical means is arranged so as to obtain at least one focusing point positioned near the upper surface of the workpiece to be cut (Figure 1a, item f1) and at least one second focusing point positioned near the lower surface of the workpiece to be cut and in the thickness of the latter (Figure 1a, item f2) wherein the first focusing point is positioned so as to coincide with the upper surface (Figure 1a, f1).

With respect to Claims 7 and 30, the teachings of Nielson and Rolf et al. are the same as relied upon in the rejection of Claim 1. Nielsen teaches the workpiece can be as high as 15 mm, however it would have been obvious to one of ordinary skill in the art at the time of the invention to decrease the thickness of the workpiece to be cut between 1.5 and 5mm in order to minimize slag and increase the cut quality (see Nielson Column 1, Lines 30-37).

With respect to Claim 8, the teachings of Nielson and Rolf et al. are the same as relied upon in the rejection of Claim 1. Nielsen teaches the workpiece is chosen from plates (Claim 1).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen (6,175,096) and Rolf et al. (WO 96/23624) as applied to claim 1 above and further in view of

McNeill (4,781,907). McNeill teaches a nictrogen/ oxygen mixture obtained from air treated by a membrane system (Column 1, Line 40 through Column 2, Line 65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assist gas of Nielsen and Nagata et al. to utilize the membrane system in order to achieve a relatively pure nitrogen stream (see McNeil Column 1, Lines 40-47).

Response to Arguments

Applicant argues that Nielson teaches using only pure gases for cutting and is completely silent on the subject of using a gas mixture. The examiner agrees. Applicant, however, goes on to argue that Nielson teaches away from using a gas mixture. The examiner disagrees. The examiner recognizes that a prior art reference that "teaches away" from the claimed invention is a significant factor to be considered in determining obviousness; however, the nature of the teaching is highly relevant and must be weighed in substance. In re Gurley, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994). A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). In the instant case, Nielson's general teaching that "typical" cutting gases include nitrogen and oxygen does not rise to the level of teaching away from cutting gases that are gas mixtures (col. 2, ll. 50-56). When reading the reference in its entirety, Nielson is completely silent as to the use of the use of gas mixtures. Additionally, Nielson makes no statements that the gas mixtures must be "pure" gases but rather states that "[t]he gas used depends on the material to be cut," which may be oxygen or nitrogen (col. 2, ll. 50-56). In

applying the test of W.L. Gore, when reading the reference in its entirety, one of ordinary skill in the art at the time of the invention could not reasonably conclude that Neilson teaches away from cutting gases that are gas mixtures. The rejection is maintained despite applicants traversal.

Applicant next argues that Rolf et al. does not teach or suggest the use of O_2/N_2 mixtures when cutting with a multiple focus lens. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the gas of Nielson to utilize the assist gas of Rolf et al. in order to increase the laser cutting speed (see Rolf et al. Page 2, Lines 25-30).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 703-308-0667. The examiner can normally be reached on M-Th 7AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.

jj
October 17, 2003